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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,426	12/22/2000	Balaji Raghunathan	0007056-0176/P5745NP/ARG/	1482

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SONNENSCHN NATH & ROSENTHAL LLP
FOR SUN MICROSYSTEMS
P.O. BOX 061080
WACKER DRIVE STATION, SEARS TOWER
CHICAGO, IL 60606-1080

EXAMINER

NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
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2143

MAIL DATE	DELIVERY MODE
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07/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/747,426

Applicant(s)

RAGHUNATHAN ET AL.

Examiner

George C. Neurauter, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10,12-17,19-24,26-28 and 36-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10,12-17,19-24,26-28 and 36-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-3, 5-10, 12-17, 19-24, 26-28, and 36-43 are currently presented and have been examined.

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5-10, 12-17, 19-24, 26-28, and 36-43 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims 1-3, 5-10, 12-17, 19-24, 26-28, and 36-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6 128 612 to Brereton et al in view of US Patent 6 427 161 to LiVecchi and in further view of US Patent Application Publication 2002/0069157 to Jordan.

Regarding claim 1, Brereton discloses a method in a data processing system having a program for a server to handle one or more client requests, the method comprising the steps of:

obtaining one or more of said client requests (referred to within the reference as "query") for hierarchically organized data at a server; dividing ("parsing") said client requests into one or more smaller units ("clause objects" or "query clause objects" and "joiners" or "joiner clauses"), said smaller units being a unit serviceable by a worker thread ("translator"); placing said smaller units in a queue ("FIFO postfix queue"); and servicing said units in order. (column 3, lines 15-28; column 5, lines 46-56; column 6, lines 20-67, specifically lines 20-40)

Brereton does not expressly disclose wherein each of the smaller units are a transaction request serviceable by one of a plurality of worker threads, however, LiVecchi does disclose wherein one of a plurality of worker threads service a transaction request from a client for hierarchically organized

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data after retrieving the request from a queue and servicing the request in order (column 2, lines 16-36; column 11, lines 1-37 and 45-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since LiVecchi discloses that servicing of requests by a plurality of worker threads allows the requests to be balanced over all of the threads (column 7, lines 24-26; column 13, lines 15-17). In view of these specific advantages and that the references are directed to receiving and processing client requests within queues, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

Brereton and LiVecchi do not expressly disclose wherein each of the smaller units including an envelope having a beginning tag and an ending tag that are recognizable by the respective worker threads and wherein the worker threads stopping service of a respective smaller unit upon encountering an ending tag, however, Brereton does disclose wherein the units

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are defined by particular tags (column 5, lines 46-56; column 6, lines 20-67, specifically lines 20-40, note "/e sub=car").

Jordan discloses wherein units are defined by a beginning tag ("`<envelope>`") and an ending tag ("`</envelope>`") ("SOAP"; paragraph 0219) (Examiner's note: these tags are defined by the XML markup language in which the tags control the processing of any commands that lie within the beginning and ending tags and, therefore, are inherent within the teachings of Jordan) (see at least previously cited references "SOAP 1.1", pages 4-5, section 1.3 "Examples of SOAP Messages" and pages 6-11, section 4, "SOAP Envelope" and "Extensible Markup Language 1.0 (Second Edition)", pages 19-21, section 3.1 "Start-Tags, End-Tags, and Empty-Element Tags").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since these references are directed to and disclose obtaining requests for hierarchically organized data, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

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Claims 8, 15, and 22 are also rejected since these claims recite substantially the same limitations as recited in claim 1.

Regarding claims 2, 9, 16, and 23, Brereton and LiVecchi do not expressly disclose wherein said client requests are in XML format, however, Jordan does disclose these limitations (paragraph 0217 and 0219).

Claims 2, 9, 16, and 23 are rejected since the motivations regarding the obviousness of claims 1, 8, 15, and 22 also apply to claims 2, 9, 16, and 23.

Regarding claims 3, 10, 17, and 24, Brereton and LiVecchi do not expressly disclose wherein said hierarchically organized data is stored using a Document object Model, however, Jordan does disclose these limitations (paragraph 0217).

Claims 3, 10, 17, and 24 are rejected since the motivations regarding the obviousness of claims 1, 8, 15, and 22 also apply to claims 3, 10, 17, and 24.

Regarding claims 5, 12, 19, and 26, Brereton and LiVecchi do not expressly disclose wherein the server is a registry server, however, Jordan does disclose this limitation (paragraph 0057).

Claims 5, 12, 19, and 26 are rejected since the motivations regarding the obviousness of claims 1, 8, 15, and 22 also apply to claims 5, 12, 19, and 26.

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Regarding claims 7, 14, 21, 28, and 35, Brereton and LiVecchi do not expressly disclose wherein said smaller units are defined by an XML <envelope> and an XML </envelope> tag, however, Brereton does disclose wherein the units are defined by particular tags (column 5, lines 46-56; column 6, lines 20-67, specifically lines 20-40, note "/e sub=car")

Jordan discloses wherein nits are defined by an XML <envelope> and an XML </envelope> tag ("SOAP"; paragraph 0219).

Claims 7, 14, 21, 28, and 35 are rejected since the motivations regarding the obviousness of claims 1, 8, 15, and 22 also apply to claims 7, 14, 21, 28, and 35.

Regarding claim 6, Brereton, LiVecchi, and Jordan disclose the method of claim 1.

Brereton discloses wherein said queue is handled using a FIFO scheduling algorithm ("FIFO postfix queue"; see also column 5, lines 46-56 and column 6, lines 20-67, specifically lines 20-40)

Claims 13, 20, and 27 are also rejected since these claims recite substantially the same limitations as recited in claim 6.

Regarding claims 36-39, Brereton, LiVecchi, and Jordan disclose the limitations recited in claims 1, 8, 15, and 22 respectively.

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Brereton does not expressly disclose wherein a plurality of client requests are received and units from the plurality of client requests are placed in the same queue, however, Brereton does disclose creating units from a client request as shown above.

LiVecchi discloses wherein a plurality of client requests are received and the plurality of client requests are placed in the same queue (column 15, lines 41-53; column 16, lines 3-16, specifically lines 14-16)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since LiVecchi discloses that placing a plurality of client requests within the same queue allows a plurality of processes which process requests to access the queue and process the request (column 17, lines 40-67). In view of these specific advantages and that the references are directed to receiving and processing client requests within queues, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

Regarding claim 40-43, Brereton, LiVecchi, and Jordan disclose the limitations recited in claims 36-39 respectively.

Brereton does not expressly disclose wherein the plurality of client requests are received through a plurality of sockets, and wherein the worker thread services units received through at least two of the plurality of sockets, however, Brereton does disclose creating units from a client request as shown above.

LiVecchi discloses wherein the plurality of client requests are received through a plurality of sockets, and wherein the worker thread services the requests received through at least two of the plurality of sockets. (column 15, lines 41-53; column 16, lines 3-16, specifically lines 14-16)

Claims 40-43 are rejected since the motivations regarding the obviousness of claims 36-39 also apply to these claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS**

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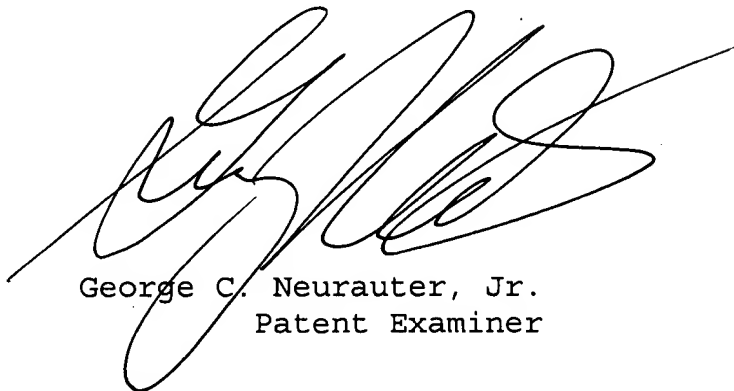
of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is 571-272-3918. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



George C. Neurauter, Jr.
Patent Examiner